REGISTRATION OF GERMLASM

U.S. Department of Agriculture and sugar company breeders as a component of bolting-resistant hybrid cultivars.

C546 (Reg. No. PL 4) — A self-fertile, monogerm inbred increased from an S line from a cross between the bolting resistant C507 and NB6 inbreds. The line has medium vigor, good pollen production, good bolting resistance, and moderate curly top resistance. Offspring from crosses with good cytoplasmic male steriles do not produce pollen. The inbred contributes good yield and average sucrose concentration to hybrids. The line is widely used by both the U.S. Department of Agriculture and the sugar company breeders as a component of bolting-resistant hybrid cultivars.

C13 (Reg. No. PL 5) — An open-pollinated, self-sterile line developed from the US 75 cultivar. Successive selections were made for resistance to beet yellows (BYV) and beet western yellows (BWYV) viruses. In evaluation tests under severe yellows, C13 produced an average 53% higher root yield and was 0.8 percentage points higher in sucrose than US 75. These tests were inoculated with BYV and BWYV. Under light yellows infection, the performance of the selection was similar to that of the parent. In addition to moderate yellows resistance, C13 is bolting resistant and has moderate curly top resistance. The line has good combining ability and is used as the pollen parent in the US H9A and US H9B hybrid cultivars. C13 is also known as C413.

C17 (Reg. No. PL 6) — An open-pollinated, self-sterile line developed from C13. Additional selections were made for virus yellows resistance with emphasis on improved sucrose concentration. In tests at Salinas and Davis, California, in plots uniformly infected with yellows (BYV and BWYV), C17 gave higher root yields than did C13. The sucrose percentage was also slightly to significantly higher for C17 in each of these tests. When uniformly infected plots were compared to healthy plots, C17 showed smaller losses in root yield than did C13, whereas the loss in sucrose percentage was nearly the same. The bolting resistance of C17 has been significantly improved over that of C13. C17 has good combining ability and is being used as the pollen parent in ‘US H10A’ and ‘US H10B’.

REGISTRATION OF SUGARBEET

PARENTAL LINE SP 6322-0

(Reg. No. PL 7)

Gerald E. Coe and George J. Hogaboam

The parental sugarbeet (Beta vulgaris L.) line developed by the Plant Science Research Division, Agricultural Research Service, U.S. Department of Agriculture, was evaluated extensively in hybrid combinations in the area and in irrigated sugarbeet growing areas east of the Rocky Mountains. It was made available to sugar company breeders as a component of bolting-resistant hybrid cultivars.

SP 6322-0 is an open-pollinated, self-sterile line combining 7 “pseudo-self-fertile” Cercospora leaf spot resistant progenies. SP 6322-0 is also moderately resistant to black root. In evaluation tests under severe leaf spot, this line produced a 40% higher sugar yield than ‘US 75’ resistant check cultivar. In the absence of leaf spot infection, the performance of the two cultivars was similar. SP 6322-0 is maintained at the Plant Industry Station, Beltsville, Md. and in the Farmers and Manufacturers Beet Sugar Association.

PARENTAL LINE SP 6322-0 was developed by the Plant Science Research Division, Agricultural Research Service, U.S. Department of Agriculture; Beet Sugar Development Foundation; and Farmers and Manufacturers Beet Sugar Association.

Dr. M. S. Offutt has requested a small but important correction in his article, “Registration of Victoria Alfalfa” (Reg. No. 53), that appeared on page 600 of the July-August issue of Crop Science. The sentence of the fifth paragraph in the article should be changed to read “Foundation seed is the first generation produced from breeder seed under the supervision of the Arkansas Agricultural Experiment Station. Some of the information that was previously reported is incorrect. The article entitled “Test weight in relation to physical and quality characteristics of soft winter wheat” by Ghaderi, Everson, and Yamazaki in the July-August issue should be corrected in Fig. 1 on page 12. In the equation y = -24.027 + 0.762x, the decimal points should be removed from the values for Test Weights on